Five-Year Review Report

Second Five-Year Review Report

for

AT&SF (Clovis) Superfund Site
Clovis
Curry County, New Mexico
CERCLIS ID NMD 043158591

July 2003

PREPARED BY:

United States Environmental Protection Agency
Region 6
Dallas, Texas

Approved by:

Myron O. Knudson, P.E.
Superfund Division Director
U.S. EPA, Region 6

Date:

9/2/03

Second Five-Year Review
Protectiveness Summary
ATSF Clovis Superfund Site - NMD043158591

Site Background:

The AT&SF Clovis site is a natural playa lake located in eastern New Mexico and is known locally as Santa Fe Lake (the lake). The lake was used as a hopper car washing facility and received various types of discharges from the railyard. The contaminants of concern were primarily hydrocarbons, chromium, lead, and other heavy metals. Its location is within a semi-rural setting on the outskirts of the town of Clovis, in Curry County. The Site was listed on the NPL in November 1981. A ROD was signed by the Agency on September 23, 1988. The site was officially deleted from the NPL on March 17, 2003.

Summary of 2nd Five Year Review:

The remedy for the AT&SF Clovis Superfund Site included remediation of three environmental media: lake water, lake sediments, and soil. Remediation of the lake water included the construction of a dike around Santa Fe lake to prevent future run-on and the evaporation of the existing lake water. Remediation of the lake sediment included excavation and bioremediation of the sediments as well as permanent storage in the on-site storage facility (OSF). Remediation of the soils included bioremediation to the point that the TPH concentration fell below 1,000 parts per million (ppm) or the concentration stabilized above 1,000 ppm. Once the concentration met either criteria, it was left in place; if the concentration fell below 1,000 ppm or, if it exceeded the remediation goal of 1,000 ppm, it was excavated and taken to the OSF where it was capped, along with the treated sediments. Construction Completion was officially declared on September 20, 2000, when a Preliminary Close-Out Report was signed on this date. The trigger for completing this five-year review was September 29, 1998, which is five years after the first review was signed. The next five-year review will be due five years from the signature date of this report.

Protectiveness Statement:

The remedy is determined to be protective of human health and the environment. All threats at the site have been addressed through (1) isolation of the lake from surface water run-on; (2) evaporation of lake water; (3) dewatering and *ex-situ* treatment of contaminated lake bottom sediments; (4) *In-situ* and *ex-situ* treatment of contaminated soils, both from beneath the lake bottom sediments and from the beach area; (5) containment of all treated sediments in the OSF; (6) containment in the OSF of any treated soils not meeting the clean-up criteria; (7) capping of the OSF following treatment of all sediments and soils; and (8) site restoration. Additionally, the site has been fenced to prevent unauthorized site access, and a Restrictive Covenant has been filed with the

Curry County Clerk's office preventing future disturbance (i.e., excavation or erosion) of the OSF. Long-term protectiveness of the remedial action will be verified through annual ground water monitoring and monthly site inspections. Current data indicates that ground water has not been impacted at the site as a result of the remedial action.

Determination:

Region 6 has determined that the site remedy remains protective of human health and the environment

Myron O. Knudson, P.E.
Director, Superfund Division
U.S. Environmental Protection Agency

9-2-03
Date

CONCURRENCE
FOR THE FIVE YEAR REVIEW
AT&SF CLOVIS SUPERFUND SITE, CLOVIS, NM

CONCURRENCE

Petra Sanchez
Remedial Project Manager

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Technical Section

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Five-Year Review Report

Table of Contents

Attachments

List of Acronyms

AOC	Administrative Order on Consent
ARAR	Applicable or Relevant and Appropriate Requirement
AT&SF	Atchison, Topeka and Santa Fe Railroad
BNSF	Burlington Northern and Santa Fe Railway Company
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
EPA	United States Environmental Protection Agency
FS	Feasibility Study
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
NCP	National Contingency Plan
NMED	New Mexico Environment Department
O&M	Operation and Maintenance
OSF	On-Site Storage Facility
PPM	Parts Per Million
RA	Remedial Action
RAO	Remedial Action Objective
RD	Remedial Design
RI	Remedial Investigation
ROD	Record of Decision
RPM	Remedial Project Manager
SDWA	Safe Drinking Water Act
TPH	Total Petroleum Hydrocarbon

Executive Summary

The remedy for the AT&SF (Clovis) Superfund site in Clovis, New Mexico included remediation of three environmental media; lake water, lake sediments, and soil. Remediation of the lake water included the construction of a dike around Santa Fe lake to prevent future run-on and the evaporation of the existing lake water. Remediation of the lake sediment included excavation and bioremediation of the sediments (to the extent possible) as well as permanent storage in the on-site storage facility (OSF). Remediation of the soils included bioremediation to the point that the TPH concentration fell below 1,000 parts per million (ppm) or the concentration stabilized above 1,000 ppm. Once the concentration met either criteria, it was left in place (if the concentration fell below 1,000 ppm) or was excavated and taken to the OSF where it was capped, along with the treated sediments. The site achieved construction completion with the signing of the Preliminary Close Out Report on September 20, 2000. The trigger for this Five-Year review was the completion of the first Five-Year review on September 29, 1998.

The assessment of this Five-Year Review found that the remedy was completed in accordance with the requirements of the Record of Decision (ROD) and is functioning as designed. The immediate threats have been addressed and the remedy is protective of human health and the environment.

Five-Year Review Summary Form

SITE IDENTIFICATION

Site name *(from WasteLAN)*: AT&SF (Clovis) Superfund Site

EPA ID *(from WasteLAN)*: NMD043158591

Region: 6	**State:** NM	**City/County:** Clovis/Curry

SITE STATUS

NPL status: ☐ Final ☒ Deleted ☐ Other (specify) _____

Remediation status (choose all that apply): ☐ Under Construction ☐ Operating ☒ Complete

Multiple OUs?* ☐ YES ☒ NO	**Construction completion date:** 9 / 20 / 2000

Has site been put into reuse? ☐ YES ☒ NO

REVIEW STATUS

Lead agency: ☒ EPA ☐ State ☐ Tribe ☐ Other Federal Agency _____

Author name: Petra Sanchez / Sai Appaji

Author title: Remedial Project Manager	**Author affiliation:** U.S. EPA, Region 6

Review period:** 10 / 1 / 1998 to 9 / 29 / 2003

Date(s) of site inspection: 6 /3 / 2003

Type of review:

☐ Post-SARA ☐ Pre-SARA ☐ NPL-Removal only
☐ Non-NPL Remedial Action Site ☐ NPL State/Tribe-lead
☐ Regional Discretion

Review number: ☐ 1 (first) ☒ 2 (second) ☐ 3 (third) ☐ Other (specify) _____

Triggering action:

☐ Actual RA Onsite Construction at OU #____ ☐ Actual RA Start at OU#____
☐ Construction Completion ☒ Previous Five-Year Review Report
☐ Other (specify) _____

Triggering action date *(from WasteLAN)*: 9 / 29 / 1998

Due date *(five years after triggering action date)*: 9 / 29 / 2003

* ["OU" refers to operable unit.]
** [Review period should correspond to the actual start and end dates of the Five-Year Review in WasteLAN.]

Five-Year Review Summary Form, cont'd.

Issues:

None Identified.

Recommendations and Follow-up Actions:

None Identified.

Protectiveness Statement(s):

All immediate threats at the site have been addressed, and the remedy is protective of human health and the environment.

Long-Term Protectiveness:

Long-term protectiveness of the remedial action will be verified by continued groundwater monitoring and post-closure inspections. Current data indicate that the groundwater beneath the site has not been impacted.

Other Comments:

None.

AT&SF (Clovis) Superfund Site
Clovis, New Mexico
Second Five-Year Review Report

I. Introduction

The purpose of the Five-Year review is to determine whether the remedy at a site is protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in Five-Year Review reports. In addition, Five-Year Review reports identify issues found during the review, if any, and identify recommendations to address them.

The Agency is preparing this Five-Year Review report pursuant to CERCLA §121 and the National Contingency Plan (NCP). CERCLA §121 states:

> *If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.*

The Agency interpreted this requirement further in the NCP; 40 CFR §300.430(f)(4)(ii) states:

> *If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.*

The United States Environmental Protection Agency (EPA), Region 6, conducted the Five-Year review of the remedy implemented at the AT&SF (Clovis) Superfund Site in Clovis, New Mexico. This review was conducted by the Remedial Project Manager (RPM) for the entire site from September 1998 through June 2003. This report documents the results of the review.

This is the second Five-Year Review for the AT&SF (Clovis) Site. The triggering action for this statutory review is the completion of the first Five-Year Review on September 29, 1998. The Five-Year Review is required due to the fact that hazardous substances, pollutants, or contaminants remain at the site above levels that allow for unlimited use and unrestricted exposure.

II. Site Chronology

Table 1: Chronology of Site Events

Event	Date
Initial discovery of problem or contamination	**1979**
Administrative Order on Consent Signature	**September 1, 1983**
NPL listing	**September 8, 1983**
Remedial Investigation/Feasibility Study complete	**August 1988**
ROD signature	**September 23, 1998**
Remedial design start	**December 16, 1998**
Remedial design complete	**November 1990**
Phase I – Construction Began	**November 1989**
Phase I – Construction Completed	**March 1992**
Phase II – Bioremediation Began	**June 1992**
Phase II – Bioremediation Completed	**October 1999**
Phase III – Site Restoration Began	**June 2000**
Phase III – Site Restoration Completed	**September 2000**
Final Close-out Report	**November 8, 2002**
Deletion from NPL	**March 17, 2003**
Previous Five-Year reviews	**September 1998**

III. Background

Physical Characteristics

The AT&SF (Clovis) Superfund Site ("Site") consists of the Santa Fe Lake, a natural playa lake, and surrounding uplands. The Site is located approximately one mile south of the present-day Burlington Northern and Santa Fe (BNSF) railyard in Clovis, Curry County, New Mexico and encompasses a quarter section of land (approximately 100 acres). The legal description of this parcel of land is "Southwest Quarter of Section 19, Range 36 East, Township 2 North". The Site is bordered on the north by a cattle feed lot and property belonging to Koch Industries, the east by Main Street, the south by Kimberly Lane, and the west by County Road K. Residential properties are located across Main Street from the Site, while agricultural croplands are located across Kimberly Lane and County Road K from the Site as shown in Attachment 1.

Land and Resource Use

As a natural playa lake, the lake basin has received intermittent run-on throughout history, including storm water and wastewater discharge from the railyard since the early 1900's. However with the construction of the dike in March 1990, storm water and wastewater run-on has been prevented from entering the basin. Following completion of the dike, the water ponded in the basin was dried through a spray evaporation system.

Currently, the basin remains dry and the remains of the dike continue to prevent storm water run-on from entering the basin. Storm water run-on is ponded in a ditch excavated outside of the former dike as shown in Attachment 2. Although wastewater discharge to the site was suspended in October 2000 with the completion of the wastewater treatment plant at the railyard, BNSF maintains a discharge permit (DP-10) with the New Mexico Environment Department (NMED) to discharge wastewater to the Site. If such discharge were to occur in the future, the remains of the dike would prevent run-on from entering the basin.

The entire Site is currently fenced, preventing unauthorized access. In addition, a restrictive covenant has been filed with Curry County preventing future activities or development from disturbing the capped On-Site Storage Facility. The Restrictive Covenant is included as Attachment 3.

The Ogallala Aquifer underlies the Site at a depth of approximately 275 to 280 feet below ground surface. Although no groundwater contamination has ever been identified at the Site, annual monitoring will continue for at least the next 10 years, at which time the need for continued monitoring will be evaluated. Regional groundwater flow in the Ogallala is to the east-southeast, however nearby irrigation and water supply wells have created a localized groundwater flow direction to the south-southwest.

History of Contamination

Since the early 1900's, the AT&SF (Clovis) Site received storm water run-off and wastewater discharge from the railyard. The specific sources of wastewater have changed over time as the needs of the railway company have changed. Activities at the railyard contributing to the discharge have included hopper car washing operations, boiler blow downs, sanitary sewers, and the oil/water separators at the diesel fueling racks. The amount of wastewater discharged has changed through time as well.

Although no records exist, prior to 1962 only small quantities of wastewater were discharged into the lake. These discharges were estimated to be from 40,000 to 60,000 gallons per day (gpd). When the hopper car washing facility was constructed in 1962, wastewater discharge loading increased significantly. It is estimated that from 1962 to 1975 the discharge averaged 100,000 gpd. The hopper car washing operations were at a maximum from 1975 to 1979. During this period, the lake was receiving between 130,000 and 145,000 gpd. By 1987, the discharge had decreased to 30,000 gpd. In October 2000, discharge from the railyard to the lake ceased. The size of the lake during the peak of the discharge was approximately 37 acres in size. During 1987 the lake had shrunk to approximately 15 acres in size.

Initial Response

Samples taken from the water in Santa Fe Lake, from the sediment in the bottom of Santa Fe Lake, and from a groundwater monitoring well located near Santa Fe Lake, between September 1979 and 1982 revealed the presence of cyanide, chromium, cadmium, and lead. The United States Environmental Protection Agency (EPA) determined that the permeability of the lake might allow for migration of these contaminants and that several municipal water wells were located downgradient from the lake. In September 1983, AT&SF entered into an Administrative Order on Consent (Docket No. CERCLA VI-4-83) with EPA Region 6.

In 1984 and 1985, seepage studies were performed. Based upon the results of those studies, EPA concluded, "the lake is leaking very slowly, if at all" (Superfund Project Update #1, September 1986). Additionally, monitoring wells were installed around the lake and sampled for various constituents. New Mexico Water Quality standards were violated for magnesium, fluoride and selenium in the monitoring wells located on the site.

Based on those sampling results, EPA concluded that the levels of magnesium and fluoride in the groundwater may be naturally high and that only the level of selenium may be the result of migration from the lake. However EPA requested that AT&SF perform a remedial investigation (RI) in order to evaluate remedial alternatives to eliminate further releases from the lake and restore groundwater to a fully useable condition.

The RI was conducted in 1987 and 1988, and the results were reported in *Remedial Investigation for the Atchison, Topeka and Santa Fe Railway Company at Clovis, New Mexico* (Radian, August 1988). The conclusions of the RI were:

- The only constituents in Santa Fe Lake water, bottom sediments and surrounding soils that may possibly have posed a potential health threat were chromium and hydrocarbons;

- Reasonable assumptions about the nature of the chromium present and the constituents in the hydrocarbons indicated that there are no health-based recommended clean-up levels for the lake water, sediments, and soils;

- More sampling of soils and sediments at the Site was recommended in order to accurately speciate the type of chromium and hydrocarbons present;

- AT&SF performed a response action on the basis of general housekeeping, aesthetics, and the desire to limit future migration of constituents from the lake bottom sediments and soils; and,

- No recommendations were made at that time for the clean-up levels for groundwater, as groundwater sampling was still in progress.

The feasibility study (FS) was conducted in 1988 and was based on the sampling results obtained for the RI. The document *Feasibility Study for the Atchison, Topeka and Santa Fe Railway Company at Clovis, New Mexico* (Radian, July 1988) summarized the findings of the study. The FS focused on evaluation of several remedial options. The primary objective of remedial action was determined to be elimination of the human exposure pathway of inhalation of wind-blown soils and sediments. Thus alternatives were evaluated for remediation of the soils and sediments. In order to remediate the sediments, removal of the water from the lake was required. The FS noted that a secondary benefit of remedial action was that, although leaching does not appear to be a concern at the Site, remediation of the soils and sediments would further reduce any potential for leaching of contaminants.

A preliminary screening of alternatives was performed and three lists of alternatives were generated that consisted of seven alternatives for the lake water, ten alternatives for the sediments and eleven alternatives for the soils. These alternatives were further screened for their effectiveness, implementability, and cost. The alternatives remaining were subjected to a detailed analysis that included technical, institutional, public health, environmental impact, and overall cost. The recommended remedial alternatives were selected as:

- Lake Water Alternative 2 – Pumping, Evaporation and Disposal of Residue;
- Sediment Alternative 6 – Dredge, On-site Bioremediation, Cap Land Treatment Area and Revegetate Dredged Area; and
- Soil Alternative 3 – In-Situ Biodegradation and Revegetate.

The FS further stated that a security fence would be constructed around the Site, as well as a run-on control system consisting of a dike and ditch around the circumference of the contaminated soils area, and a sprinkler system would be installed within the perimeter of the dike. The system would be used to enhance evaporation of the lake water. A land treatment area would also be constructed for on-site biodegradation of the sediments.

Basis for Taking Action

Parameters of concern

Parameters of concern that were initially identified and evaluated in detail at the site in each media include:

Groundwater	Lake Water	Sediment	Soil
Calcium	Arsenic	Boron	Barium
Chloride	Boron	Chromium	Boron
Fluoride	Cadmium	Hydrocarbons	Chloride
Magnesium	Chromium	Lead	Hydrocarbons
Sodium	Fluoride	Phenolics	Phenolics
Sulfate	Lead	Total Organic Carbon	Sulfate
Total Dissolved Solids	Phenolics		
Total Alkalinity	Total Dissolved Solids		
Bicarbonate	Total Organic Carbon		
Conductivity			

Exposures to sediments and soils were associated with significant human health risk, due to exceedance of EPA's risk management criteria for either the average or the reasonable maximum exposure scenarios. No groundwater contamination was identified and as remedial action included the draining of the lake basin, exposure to lake water became a non-issue. The carcinogenic risks were highest for exposures to sediments due to the high concentration of chromium. Non-carcinogenic risks were highest for exposure to sediment and soil due to the high concentration of hydrocarbons.

IV. Remedial Actions

Remedy Selection

The ROD for the AT&SF (Clovis) Superfund Site was signed on September 23, 1988. A single, primary Remedial Action Objective (RAO) was developed as a result of data collected during the RI to aid in the development and screening of remedial alternatives to be considered for the ROD. The primary RAO was determined to be elimination of the human exposure pathway of inhalation of wind-blown soils and sediments. An additional benefit of the remedial action was the probable elimination of any potential leaching from the soils, sediments, and lake water.

The remedy selected in the ROD was divided into three major phases including:

- Phase I – construction of a rainfall run-on/runoff control system and a lake water evaporation system;
- Phase II – bioremediation of soil and sediments; and
- Phase III – site restoration

Remedy Implementation

In the Administrative Order on Consent (AOC) signed with EPA on September 1, 1983, AT&SF agreed to perform the remedial design/remedial action (RD/RA) and pay costs for cleaning up the site. The Remedial Design (RD) was conducted in conformance with the ROD.

The Remedial Action (RA) took place in three phases. The first phase entailed the construction of a rainfall run-on/runoff control system and a lake water evaporation system. The activities associated with this phase began in November 1989 with the construction of the run-on/runoff control dike and were

completed in March 1992 with the completion of the irrigation system and spray evaporation system. The second phase entailed the bioremediation of soil and sediments and included the evaporation of lake water, dewatering and *ex-situ* treatment of contaminated lake bottom sediments, *in-situ* and *ex-situ* treatment of contaminated soils, both from beneath the lake bottom sediments and from the beach area, containment of all treated sediments in the OSF, and containment in the OSF of any treated soils not meeting the clean-up criteria. The activities associated with this phase began in June 1992 and were completed in October 1999. The third phase entailed restoration of the site and included capping of the OSF and establishment of vegetation. The activities associated with this phase began in June 2000 and were completed in September 2000.

The site achieved construction completion status when the Preliminary Close-Out Report was signed on September 20, 2000. The Final Close-Out Report was signed on November 8, 2002 by the Superfund Division Director.

System Operation/Operation and Maintenance

AT&SF is conducting long-term monitoring and maintenance activities according to the post-closure operations and maintenance (O&M) plan that was approved by EPA in November 2002. The primary activities associated with O&M include the following:

- Visual inspection of the OSF cap with regard to vegetative cover, settlement, stability, and any need for corrective action;
- Visual inspection of the lake basin with regard to vegetative cover and erosion;
- Quarterly groundwater monitoring through June 2003, followed by annual monitoring for a minimum of ten-years; and
- Inspection of the condition of groundwater monitoring wells.

The primary cleanup of the AT&SF (Clovis) Superfund Site took place during the bioremediation phase of the Remedial Action. Therefore, as indicated in the planned elements above, the primary O&M activities have been geared towards monitoring groundwater, inspections, and maintenance of the OSF and lake basin.

V. Progress Since the Last Review

The first Five-Year Review was completed in September 1998. Since the first review, the following milestones have been achieved:

- Bioremediation of all soils and sediments was completed in October 1999;
- Site restoration, including capping of the OSF and seeding of native grasses, was completed in September 2000;
- Construction completion was declared on September 20, 2002 through a Preliminary Close-Out Report;

- A Final Close-Out Report was signed on November 8, 2002 by the Superfund Division Director;

- A Direct Final Notice of Deletion from the NPL was published in the Federal Register Notice on January 16, 2003. The public comment period extended through February 18, 2003; and

- Site deletion was declared on March 17, 2003

VI. Five-Year Review Process

The Five-Year review has been conducted in accordance with the EPA's guidance document for Five-year Review Process. The findings of the review are discussed in the following sections.

Administrative Components

This second Five-Year review was lead and conducted by the EPA's RPM for the site Ms. Petra Sanchez, EPA, Region 6.

Community Involvement

EPA held an Open House on November 12, 2002, announcing EPA's intent to delete the site from the NPL. The action was well received by the community in attendance. Subsequently, EPA held another open house on April 24, 2003 to commemorate deletion of the site from NPL.

Data Review

TRC Environmental Corporation (TRC) completed ground water monitoring in 2002 and submitted a report *Summary of 2002 Groundwater Monitoring Program For The Santa Fe Lake Site, Clovis, NM* to the EPA.

According to the conclusions in the report no noticeable trends were present for any constituents except chloride. Chloride concentrations in three wells fluctuated throughout the monitoring program and believed to be the result of naturally occurring slugs of chloride. Based on a review of the data obtained from 1992, no impact to ground water has occurred as a result of remedial activities at the site.

Site Inspection

A site inspection was conducted by the EPA on June 3, 2003. A completed site inspection checklist is included in Attachment 1.

VII. Technical Assessment

The purpose of the Five-Year Review is to determine whether the remedy at the site is protective of human health and the environment. The technical assessment examines the following three questions to determine the protectiveness at the site.

Question A: Is the remedy functioning as intended by the decision documents?

Remedy at the site has been achieved and the site has been officially deleted from the NPL. Based on site inspection and interview with relevant parties no new evidence of contamination is present at the site.

***Question B: Are the exposure assumptions, toxicity data, cleanup levels, and Remedial Action Objectives (RAO)* used at the time of the remedy selection still valid?**

Assumptions made regarding toxicity data, cleanup levels and RAO used a the time of the remedy selection is still valid as the conditions have not deteriorated a the site.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

There is no new evidence that calls into question the protectiveness of the remedy at the site.

VIII. Issues

There are no outstanding issues at this site.

IX. Recommendations and Follow-up Actions

Ground water will continue to be monitored at the site until it is determined that it is no longer necessary.

X. Protectiveness Statement(s)

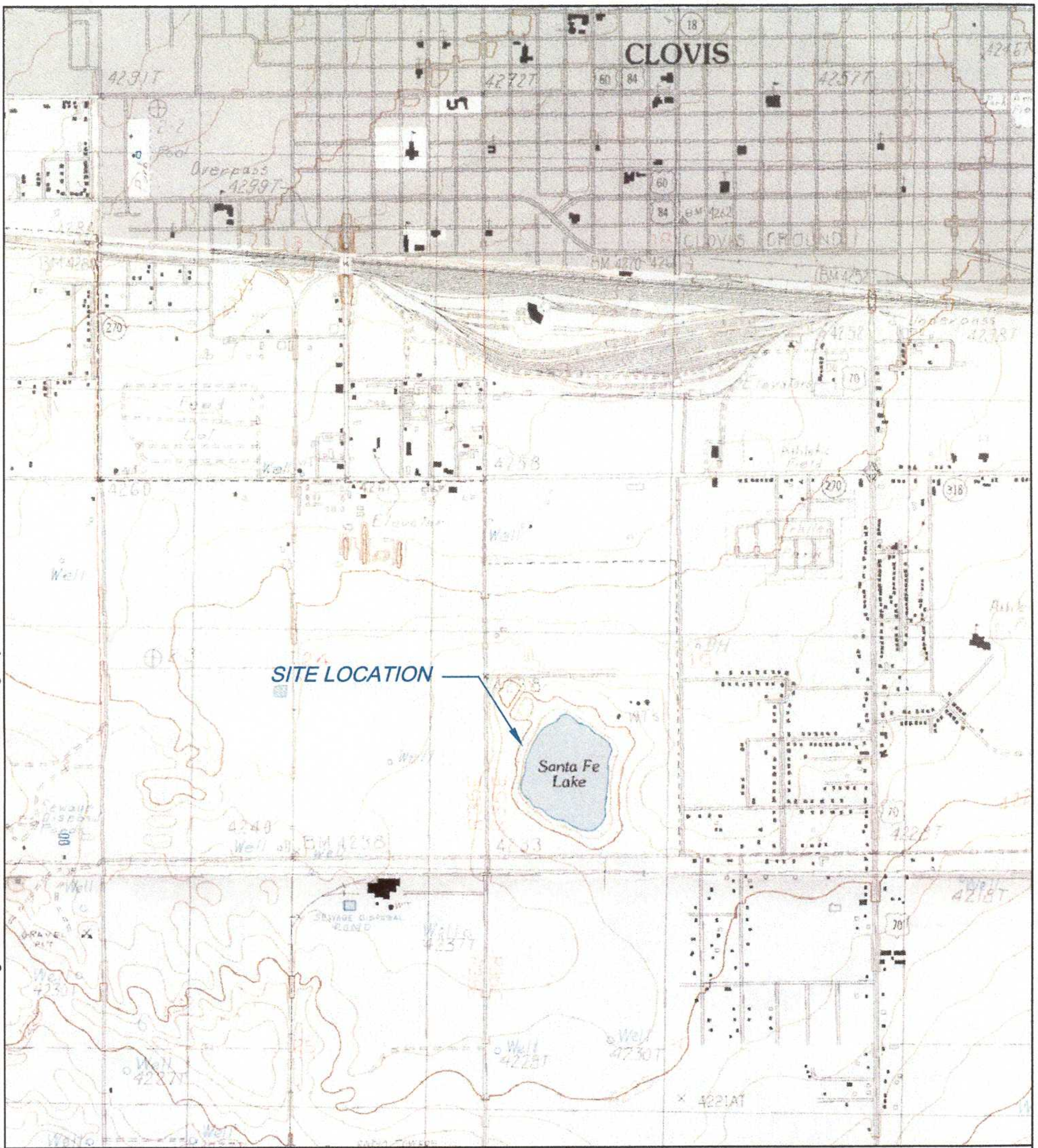
The remedy is determined to be protective of human health and the environment. All threats at the site have been addressed through (1) isolation of the lake from surface water run-on; (2) evaporation of lake water; (3) dewatering and *ex-situ* treatment of contaminated lake bottom sediments; (4) *In-situ* and *ex-situ* treatment of contaminated soils, both from beneath the lake bottom sediments and from the beach area; (5) containment of all treated sediments in the OSF; (6) containment in the OSF of any treated soils not meeting the clean-up criteria; (7) capping of the OSF following treatment of all sediments and soils; and (8) site restoration. Additionally the site has been fenced to prevent unauthorized site access and a Restrictive Covenant has been filed with the Curry County Clerk's office preventing future disturbance (i.e. excavation or erosion) of the OSF. Long-term protectiveness of the remedial action will be verified through annual groundwater monitoring and monthly site inspections. Current data indicates that groundwater has not been impacted at the site as a result of the remedial action.

XI. Next Review

The next Five-Year for the AT&SF (Clovis) Superfund Site is required five years from the signature date of this review.

ATTACHMENT 1

SITE LOCATION



2000 0 2000

SCALE IN FEET

QUADRANGLE LOCATION

SOURCE:
U.S.G.S. 7.5 MINUTE QUADRANGLE MAP,
CLOVIS, NEW MEXICO; PROVISIONAL EDITION 1985
MIDWAY, NEW MEXICO; PROVISIONAL EDITION 1985

SITE LOCATION

BURLINGTON NORTHERN AND SANTA FE RAILWAY COMPANY
SANTA FE LAKE SITE
CLOVIS, NEW MEXICO

PROJECT NO.: 25617 DATE: 2-6-03

TRC Environmental Corporation
Customer-Focused Solutions

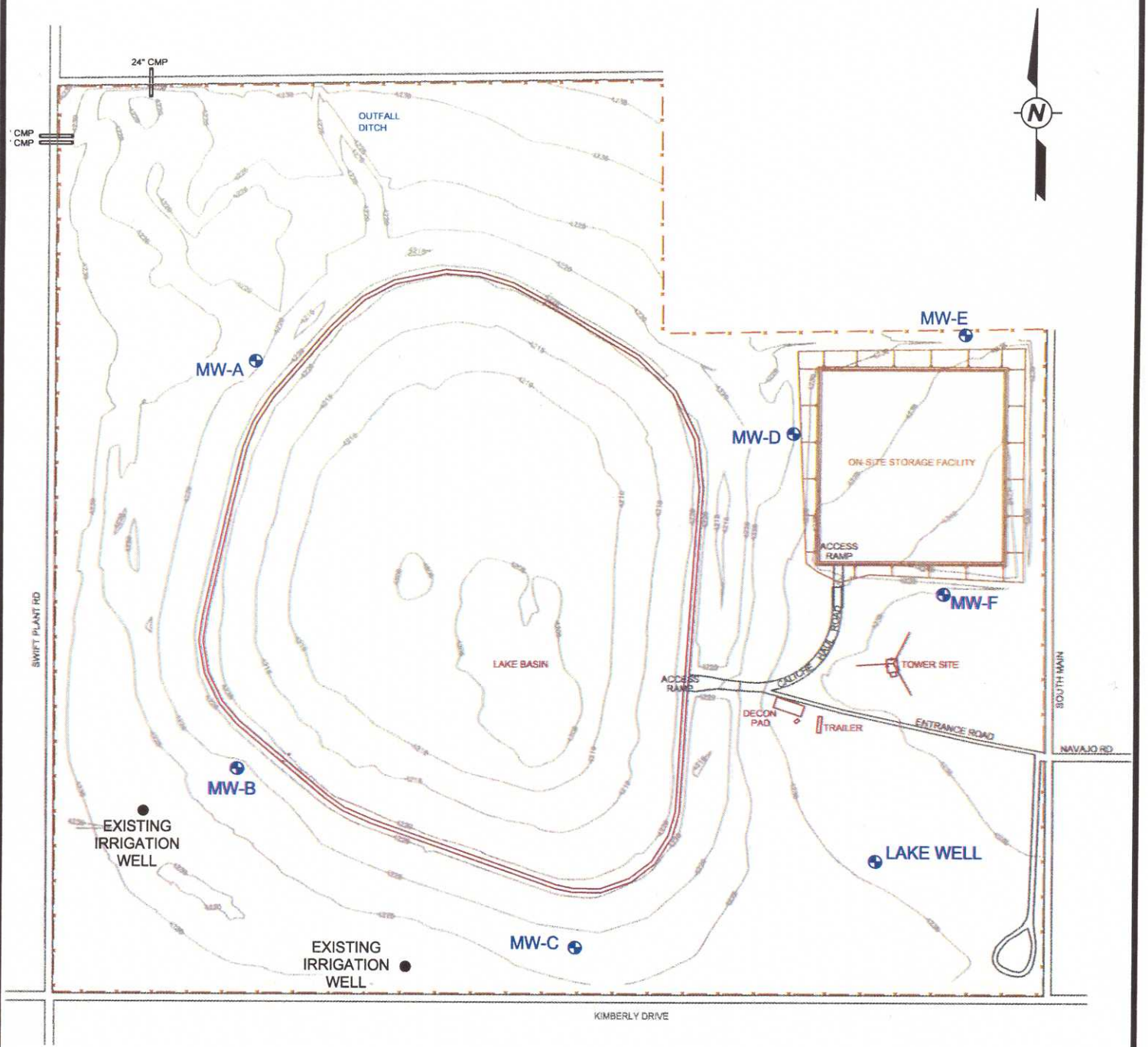
2313 WEST SAM HOUSTON PARKWAY NORTH
SUITE 107
HOUSTON, TEXAS 77043
(713) 821-7000

FIGURE 1-1

HOU O:\BNSF - Clovis Lake Site\Reports\EOY\EOY - 2002\Drawings\BNSF-CLOVISLAKE-EOY-2002-SITELOC.dwg Layout1 03/06/03

ATTACHMENT 2

SITE PLAN



LEGEND

MW-C ⊕ - MONITOR WELL LOCATION

0 200 400 800

SCALE IN FEET
1" = 400'-0"

MONITORING WELL LOCATIONS

BURLINGTON NORTHERN AND SANTA FE RAILWAY COMPANY
SANTA FE LAKE SITE
CLOVIS, NEW MEXICO

PROJECT NO.: 25617 | DATE: 3-6-03

TRC
Environmental Corporation
Customer-Focused Solutions
2313 W. SAM HOUSTON PARKWAY N.
STE. 107
HOUSTON, TEXAS 77043
713-821-7000

FIGURE 2-1

HOU O:\BNSF - Clovis Lake Site\Reports\EOY\EOY - 2002\Drawings\BNSF-CLOVIS-EOY-02-MONWELL-LOCS.dwg Layout1 03/10/03

ATTACHMENT 3

INSPECTION FORM

AT&SF Clovis
Santa Fe Lake
Five-Year Review Site Inspection Checklist

Please note that "O&M" is referred to throughout this checklist. At sites where Long-Term Response Actions are in progress, O&M activities may be referred to as "system operations" since these sites are not considered to be in the O&M phase while being remediated under the Superfund program. N/A means "not applicable."

I. SITE INFORMATION	
Site Name: AT&SF Clovis	**EPA ID:** NMD043158591
City/State: Clovis, New Mexico	**Date of Inspection:** June 3, 2003
Agency Completing 5 Year Review: EPA	**Weather/temperature:** Partly Cloudy, 72°F Rained day before inspection

Remedy Includes: (Check all that apply)
- ☒ Landfill cover/containment
- ☒ Access controls
- ☒ Institutional controls
- ☐ Groundwater pump and treatment
- ☐ Surface water collection and treatment
- ☒ Other: Vegetative Cover

Attachments: ☐ Inspection team roster attached ☒ Site map attached

II. INTERVIEWS (Check all that apply)

– **O&M site manager**: BNSF Contractor Representative
Name: Pamela Krueger(for Tim Wippold)
Title: Project Manager
Date: June 3, 2003
Interviewed: ☒ at site ☐ at office ☐ by phone Phone Number:
Problems, suggestions: ☐ Additional report attached (if additional space required).

2. **O&M staff:** N/A
Name:
Title:
Date:
Interviewed: ☐ at site ☐ at office ☐ by phone Phone Number:
Problems, suggestions: ☐ Additional report attached (if additional space required).

3. Local regulatory authorities and response agencies (i.e., State and Tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices, etc.) Fill in all that apply.

Agency: NMED
Contact: Superfund Oversight Section
Name: George Schuman
Title: Section Chief
Date: June 3, 2003
Phone Number: 505-827-7200
Problems, suggestions: ☐ Additional report attached (if additional space required).

Agency:
Contact:
Name:
Title:
Date:
Phone Number:
Problems, suggestions: ☐ Additional report attached (if additional space required).

Agency:
Contact:
Name:
Title:
Date:
Phone Number:
Problems, suggestions: ☐ Additional report attached (if additional space required).

Agency:
Contact:
Name:
Title:
Date:
Phone Number:
Problems, suggestions: ☐ Additional report attached (if additional space required).

4, Other interviews (optional) ☒ N/A ☐ Additional report attached (if additional space required).

Interview Record Forms are provided in Attachment 2 to the Five-Year Review Report.

III. ONSITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)

1. O&M Documents

☒ O&M Manuals	☒ Readily available	☒ Up to date	☐ N/A
☒ As-Built Drawings	☒ Readily available	☒ Up to date	☐ N/A
☒ Maintenance Logs	☒ Readily available	☒ Up to date	☐ N/A

Remarks: Logbook and maintenance logs kept at TRC office for up-to-date recordkeeping and referencing.

2. Health and Safety Plan Documents

☒ Site-Specific Health and Safety Plan	☒Readily available	☒ Up to date	☐ N/A
☒ Contingency plan/emergency response plan	☒ Readily available	☒ Up to date	☐ N/A

Remarks:

3. O&M and OSHA Training Records ☒ Readily available ☒ Up to date ☐ N/A

Remarks: TRC personnel carry training certification on their person.

4. Permits and Service Agreements

☐ Air discharge permit	☐ Readily available	☐ Up to date	☒ N/A
☐ Effluent discharge	☐ Readily available	☐ Up to date	☒ N/A
☐ Waste disposal, POTW	☐ Readily available	☐ Up to date	☒ N/A
☐ Other permits	☐ Readily available	☐ Up to date	☒ N/A

Remarks:

5. Gas Generation Records ☐ Readily available ☐ Up to date ☒ N/A

Remarks:

6. Settlement Monument Records ☐ Readily available ☐ Up to date ☒ N/A

Remarks: There are no onsite settlement monuments.

7. Groundwater Monitoring Records ☒ Readily available ☒ Up to date ☐N/A

Remarks: Records are maintained at TRC office. Logbook is carried to the field for monitoring events and for inspections.

8. Leachate Extraction Records ☐ Readily available ☐ Up to date ☒ N/A

Remarks:

9. Discharge Compliance Records ☐ Readily available ☐ Up to date ☒ N/A

Remarks:

10. Daily Access/Security Logs ☒ Readily available ☒ Up to date ☐ N/A

Remarks: Maintained on site for period of August 1999 to present. Previous logs maintained at TRC office.

IV. O&M Costs ☐ Applicable ☒ N/A

☐ **O&M Organization**
☐ State in-house ☐ Contractor for State
☐ PRP in-house ☐ Contractor for PRP
☐ Other:

☐ **O&M Cost Records**
☐ Readily available ☐ Up to date ☐ Funding mechanism/agreement in place
Original O&M cost estimate: ☐ Breakdown attached

Total annual cost by year for review period if available

From (Date): _____ To (Date): _____ Total cost: _____ ☐ Breakdown attached

From (Date): _____ To (Date): _____ Total cost: _____ ☐ Breakdown attached

From (Date): _____ To (Date): _____ Total cost: _____ ☐ Breakdown attached

From (Date): _____ To (Date): _____ Total cost: _____ ☐ Breakdown attached

From (Date): _____ To (Date): _____ Total cost: _____ ☐ Breakdown attached

☐ **Unanticipated or Unusually High O&M Costs During Review Period** ☐ N/A
Describe costs and reasons:

V. ACCESS AND INSTITUTIONAL CONTROLS ☒ Applicable ☐ N/A

☐ **Fencing**

☐ **Fencing damaged** ☐ Location shown on site map ☒ Gates secured ☐ N/A
Remarks: No damaged fencing noted.

☐ **Other Access Restrictions**

☐ **Signs and other security measures** ☒ Location shown on site map ☐ N/A
Remarks: Emergency numbers posted on main gate.

☐ **Institutional Controls**

☐ **Implementation and enforcement**

Site conditions imply ICs not properly implemented:	☐ Yes	☒ No	☐ N/A
Site conditions imply ICs not being fully enforced:	☐ Yes	☒ No	☐ N/A

Type of monitoring (e.g, self-reporting, drive by): Self-reporting
Frequency: Daily. Frequency will be reduced after vegetation well established.
Responsible party/agency: BNSF
Contact: GMC Environmental - Subcontracted to TRC
Name: Mike Flen
Title:
Date: June 3, 2003
Phone Number: 505-760-5634

Reporting is up-to-date:	☒ Yes	☐ No	☐ N/A
Reports are verified by the lead agency:	☒ Yes	☐ No	☐ N/A
Specific requirements in deed or decision documents have been met:	☒ Yes	☐ No	☐ N/A
Violations have been reported:	☐ Yes	☐ No	☒ N/A

Other problems or suggestions: ☒ Additional report attached (if additional space required).
Copy of IC (deed recordation) attached.

☐ **Adequacy** ☒ ICs are adequate ☐ ICs are inadequate ☐ N/A
Remarks:

☐ **General**

1. Vandalism/trespassing ☐ Location shown on site map ☒ No vandalism evident
Remarks:

2. Land use changes onsite ☐ Yes ☒ No ☐ N/A
Remarks:

3. Land use changes offsite ☐ Yes ☒ No ☐ N/A
Remarks:

VI. GENERAL SITE CONDITIONS

A. Roads ☒ Applicable ☐ N/A

1. Roads damaged ☒ Location shown on site map ☒ Roads adequate ☐ N/A
Remarks:

B. Other Site Conditions

Remarks:

VII. LANDFILL COVERS	☒ Applicable	☐ N/A

A. Landfill Surface

1. Settlement (Low spots)
Areal extent:
Remarks:
☐ Location shown on site map
Depth:
☒ Settlement not evident

2. Cracks
Lengths:
Remarks:
☐ Location shown on site map
Widths:
Depths:
☒ Cracking not evident

3. Erosion
Areal extent:
Remarks:
☐ Location shown on site map
Depth:
☒ Erosion not evident

4. Holes
Areal extent:
Remarks:
☐ Location shown on site map
Depth:
☒ Holes not evident

5. Vegetative Cover
☒ Cover properly established
☒ No signs of stress
☒ Grass
☐ Trees/Shrubs
Remarks:

6. Alternative Cover (armored rock, concrete, etc.) ☐ N/A
Remarks: Ballast adequately covering geocell at outlet areas.

7. Bulges
Areal extent:
Remarks:
☐ Location shown on site map
Height:
☒ Bulges not evident

8. Wet Areas/Water Damage ☒ Wet areas/water damage not evident

☐ Wet areas	☐ Location shown on site map	Areal extent:
☐ Ponding	☐ Location shown on site map	Areal extent:
☐ Seeps	☐ Location shown on site map	Areal extent:
☐ Soft subgrade	☐ Location shown on site map	Areal extent:

Remarks: .

9. Slope Instability
Areal extent:
Remarks:
☐ Slides
☐ Location shown on site map
☒ No evidence of slope instability

☐ **Benches** ☐ Applicable ☒ N/A
(Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)

☐ **Flows Bypass Bench**
Remarks:
☐ Location shown on site map
☐ N/A or okay

☐	**Bench Breached** Remarks:	☐ Location shown on site map	☐ N/A or okay
☐	**Bench Overtopped** Remarks:	☐ Location shown on site map	☐ N/A or okay
☐	**Letdown Channels** (Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)		☐ Applicable ☒ N/A
☐	**Settlement** Areal extent: Remarks:	☐ Location shown on site map Depth:	☐ No evidence of settlement
☐	**Material Degradation** Material type: Remarks:	☐ Location shown on site map Areal extent:	☐ No evidence of degradation
☐	**Erosion** Areal extent: Remarks:	☐ Location shown on site map Depth:	☐ No evidence of erosion
☐	**Undercutting** Areal extent: Remarks:	☐ Location shown on site map Depth:	☐ No evidence of undercutting
☐	**Obstructions** Type: Areal extent: Remarks:	☐ Location shown on site map Height:	☐ N/A
☐	**Excessive Vegetative Growth** ☐ Evidence of excessive growth ☐ Location shown on site map Remarks:	☐ No evidence of excessive growth ☐ Vegetation in channels but does not obstruct flow Areal extent:	
D.	**Cover Penetrations**		☐ Applicable ☒ N/A
☐	**Gas Vents** ☐ Active ☐ Passive ☐ Properly secured/locked ☐ Evidence of leakage at penetration Remarks:	☐ Routinely sampled ☐ Functioning ☐ Needs O& M	☐ N/A ☐ Good condition

☐ **Gas Monitoring Probes** ☐ N/A
☐ Routinely sampled
☐ Properly secured/locked ☐ Functioning ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs O&M
Remarks:

☐ **Monitoring Wells** (within surface area of landfill) ☐ N/A
☐ Routinely sampled
☐ Properly secured/locked ☐ Functioning ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs O&M
Remarks:

☐ **Leachate Extraction Wells** ☐ N/A
☐ Routinely sampled
☐ Properly secured/locked ☐ Functioning ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs O&M
Remarks:

☐ **Settlement Monuments** ☐ Located ☐ Routinely surveyed ☐ N/A
Remarks: There are no settlement monuments onsite.

☐ **Gas Collection and Treatment** ☐ Applicable ☒ N/A

☐ **Gas Treatment Facilities** ☐ N/A
☐ Flaring ☐ Thermal destruction ☐ Collection for reuse
☐ Good condition ☐ Needs O& M
Remarks:

☐ **Gas Collection Wells, Manifolds and Piping** ☐ N/A
☐ Good condition ☐ Needs O& M
Remarks:

☐ **Gas Monitoring Facilities** (e.g., gas monitoring of adjacent homes or buildings) ☐ N/A
☐ Good condition ☐ Needs O& M
Remarks:

☐ **Cover Drainage Layer** ☒ Applicable ☐ N/A

1. **Outlet Pipes Inspected** ☐ Functioning ☒ N/A
Remarks:

2. **Outlet Rock Inspected** ☒ Functioning ☐ N/A
Remarks: New ballast rock placed in some areas along northern and western slopes recently. Ballast is providing adequate cover and is less susceptible to erosion than pea gravel previously used. Routine O&M will include inspection and replacement, as needed.

☐ **Detention/Sedimentation Ponds** ☐ Applicable ☒ N/A

☐	**Siltation** Areal extent: Depth: Remarks:	☐ Siltation evident	☐ N/A
☐	**Erosion** Areal extent: Depth: Remarks:	☐ Erosion evident	☐ N/A
☐	**Outlet Works** Remarks:	☐ Functioning	☐ N/A
☐	**Dam** Remarks:	☐ Functioning	☐ N/A
☐	**Retaining Walls**		☐ Applicable ☒ N/A
1.	**Deformations** Horizontal displacement: Vertical displacement: Remarks:	☐ Location shown on site map	☐ Deformation not evident Rotational displacement:
2.	**Degradation** Remarks:	☐ Location shown on site map	☐ Degradation not evident
☐	**Perimeter Ditches/Off-site discharge**		☐ Applicable ☒ N/A
☐	**Siltation** Areal extent: Depth: Remarks:	☐ Location shown on site map	☐ Siltation not evident
☐	**Vegetative Growth** Areal extent: Type: Remarks:	☐ Location shown on site map	☐ Vegetation does not impede flow
☐	**Erosion** Areal extent: Depth: Remarks:	☐ Location shown on site map	☐ Erosion not evident
☐	**Discharge Structure** ☐ Functioning Remarks:	☐ Location shown on site map ☐ Good Condition	☒ N/A
	VIII. VERTICAL BARRIER WALLS		☐ Applicable ☒ N/A
☐	**Settlement** Areal extent: Depth: Remarks:	☐ Location shown on site map	☐ Settlement not evident

☐ **Performance Monitoring** ☐ N/A
☐ Performance not monitored
☐ Performance monitored Frequency:
☐ Evidence of breaching Head differential:
Remarks:

IX. GROUNDWATER PROTECTION/SURFACE WATER REMEDIES ☐ Applicable ☒ N/A

☐ **Groundwater Extraction Monitoring Wells, Pumps, and Pipelines** ☒ Applicable ☐ N/A

1. Pumps, Wellhead Plumbing, and Electrical ☐ N/A
☒ All required wells located ☐ Good condition ☒ Needs O& M
Remarks: MW-D was struck by irrigation system tower day before inspection. Anchor for lock of locking cap broken and needs to be welded back on. Casing needs to be repainted. All other wells in good condition.

2. Extraction System Pipelines, Valves, Valve Boxes, and Other Appurtenances ☒ N/A
☐ System located ☐ Good condition ☐ Needs O& M
Remarks:

3. Spare Parts and Equipment ☐ N/A
☒ Readily available ☐ Good condition
☐ Requires Upgrade ☐ Needs to be provided
Remarks: Dedicated pumps in each well. Maintenance crew available, if required, to perform repairs.

B. Surface Water Collection Structures, Pumps, and Pipelines ☐ Applicable ☒ N/A

1. Collection Structures, Pumps, and Electrical ☐ N/A
☐ Good condition ☐ Needs O& M
Remarks:

2. Surface Water Collection System Pipelines, Valves, Valve Boxes, and Other Appurtenances ☐ N/A
☐ Good condition ☐ Needs O& M
Remarks:

3. Spare Parts and Equipment ☐ N/A
☐ Readily available ☐ Good condition
☐ Requires Upgrade ☐ Needs to be provided
Remarks:

C. Treatment System ☐ Applicable ☒ N/A

1. Treatment Train (Check components that apply)
☐ Metals removal ☐ Oil/water separation ☐ Bioremediation
☐ Air stripping ☐ Carbon adsorbers ☐ Filters (list type):
☐ Additive (list type, e.g., chelation agent, flocculent)
☐ Others (list): Reverse Osmosis Plant
☐ Good condition ☐ Needs O&M
☐ Sampling ports properly marked and functional
☐ Sampling/maintenance log displayed and up to date
☐ Equipment properly identified
☐ Quantity of groundwater treated annually (list volume): about 43 million gallons recovered Oct 95 - Dec 2001.
☐ Quantity of surface water treated annually (list volume):
Remarks:

2. Electrical Enclosures and Panels (properly rated and functional) ☐ N/A
☐ Good condition ☐ Needs O& M
Remarks:

3. Tanks, Vaults, Storage Vessels ☐ N/A
☐ Good condition ☐ Proper secondary containment ☐ Needs O&M
Remarks:

4. Discharge Structure and Appurtenances ☐ N/A
☐ Good condition ☐ Needs O& M
Remarks:

5. Treatment Building(s) ☐ N/A
☐ Good condition (esp. roof and doorways) ☐ Needs Repair
☐ Chemicals and equipment properly stored
Remarks:

6. Monitoring Wells (pump and treatment remedy) ☐ N/A
☐ All required wells located ☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled
☐ Good condition ☐ Needs O&M
Remarks:

☐ **Monitored Natural Attenuation** ☐ Applicable ☒ N/A

1. Monitoring Wells (natural attenuation remedy) ☐ N/A
☐ All required wells located ☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled
☐ Good condition ☐ Needs O&M
Remarks:

X. OTHER REMEDIES ☐ Applicable ☐ N/A

OSF Cap Vegetative Cover: OSF cap demonstrates flourishing grass stand. Root system on grasses is stable. No indication of erosion or settling. Native grass stand of grama grasses (blue grama and sideoats grama) well established, with approximately 85-90% coverage. Small patches of weeds (kochia) and alfalfa are interspersed throughout cap area. Last mowed in March 2003 and next mowing scheduled for fall 2003.

Lake Basin Vegetative Cover: Erosion control (silt fence) is functioning well. Northeastern quadrant of lake is most recently planted. Excellent stand of native grass established at entry road to lake. Native grasses (blue grama, sideoats grama, clover, squirrel-tail bottle brush, etc.) cover approximately 70-80% of lake basin. Isolated areas may require additional seeding. Some patches of weeds (kochia, russian thistle, etc.) are located throughout the basin. Pivot-point irrigation system wheels create ruts through portions of the lake. Ruts are routinely filled with ballast (gravel) to reduce damage to ground and pivot system.

XI. OVERALL OBSERVATIONS

A. Implementation of the Remedy

The OSF cap contains the stabilized soils and sediments and prevents infiltration/leachate to ground water. Regrading of lake basin following completion of treatment has been completed and native vegetation is well on the way to being completely established.

B. Adequacy of O&M

O&M adequate to ensure proper establishment of vegetative cover, prevent erosion, and maintain OSF cap.

C. Early Indicators of Potential Remedy Failure

No indicators of potential remedy failure noted.

D. Opportunities for Optimization

Once vegetation established, irrigation of lake basin area may be stopped to reduce costs. Frequency of inspections by contractor (currently daily) may also be reduced following establishment of vegetation.

ATTACHMENT 4

RESTRICTIVE COVENANT

CC0302474

DECLARATION OF RESTRICTIVE COVENANTS
For Property Located at the Santa Fe Lake Site
Clovis, New Mexico

THIS DECLARATION is made this 17th day of March 2003 by The Burlington Northern and Santa Fe Railway Company ("BNSF").

RECITALS:

WHEREAS, BNSF is the owner of certain real property located near Clovis, New Mexico, more particularly described in Exhibit A, attached hereto and incorporated herein (the "Property").

WHEREAS, the U.S. Environmental Protection Agency ("EPA") and The Atchison, Topeka, and Santa Fe Railway Company, predecessor to BNSF have negotiated an Administrative Order on Consent, EPA Region 6, CERCLA Docket No. 06-04-83, to perform investigation activities to determine the nature of any contamination, perform a remedial investigation and implement remedial actions at the Santa Fe Lake Site (the "Site"), as described in EPA's Record of Decision, dated September 23, 1988. With the approval and oversight of EPA, certain materials at the Site were excavated and placed in an On-site Storage Facility established on the Property (the "OSF"). The Property encompasses the OSF and is a portion of the Site as shown generally on the map which is Exhibit B.

WHEREAS, to maintain the integrity of the OSF, this Declaration prohibits, prevents, and prescribes the performance of certain activities on the Property.

WHEREAS, the restrictive covenants herein run with the land, for the benefit of the public and the Enforcing Agencies, and are intended to preserve human health and the environment by ensuring the present and future integrity of the completed Remedial Activities.

ARTICLE I.
DEFINITIONS

Unless the context otherwise specifies or requires, the terms defined in this article shall, as used in this Declaration have the meanings set forth below:

1. Declaration. "Declaration" means this Declaration of Restrictive Covenants for Property located at the Santa Fe Lake Site, near Clovis, Curry County, New Mexico, as more particularly described in Exhibit A attached hereto.

2. Enforcing Parties. "Enforcing Parties" means the Enforcing Agencies and/or BNSF. Enforcing Agencies are EPA, New Mexico Environment Department, and any successor departments, agencies, or instrumentalities of the United States or the State of New Mexico.

3. On-site Storage Facility (OSF). "On-site Storage Facility" is encompassed within the Property described in Exhibit A and means the designed, capped, and revegetated area that is approximately 500 feet wide, 525 feet long, and 11 feet deep and is located in the northeastern corner of the Site. The OSF contains approximately 96,000 cubic feet of treated sediments and soils removed from the Site.

4. Owner. "Owner" means each and every person who now or hereafter owns, occupies, or acquires any right, title, or interest in or to the Property or any portion of the Property and their successors, heirs, representatives and assigns.

5. Property. "Property" means the real property as described in Exhibit A attached hereto. The Property includes the OSF plus a perimeter buffer around the OSF.

ARTICLE II.
SUBJECT PROPERTY

BNSF hereby declares that the Property is and shall be conveyed, encumbered, leased, occupied, built upon or otherwise used, improved, or transferred, in whole or in part, subject to this Declaration. All the covenants, conditions, restrictions, and easements set forth in this Declaration are established for the purpose of preserving the public health and the environment by ensuring the present and future integrity of the OSF. Such covenants, conditions, and restrictions are intended to benefit the public and the Enforcing Agencies by preventing the disturbance, interference, invasion, penetration, erosion, or other adverse impacts to the Property, and by preventing migration or dispersal of hazardous substances on the Property. All of such covenants, conditions, restrictions and easements shall run with all of the Property for all purposes and shall be binding upon the current and future Owner(s) as set forth in this Declaration.

ARTICLE III.
RESTRICTIONS ON USE

No activities or uses are permitted on the Property that will or are likely to disturb, interfere, invade, or adversely impact the OSF, could create a threat to human health or the environment, or cause erosion on or near the OSF. Specifically, future development and use of the Property shall be prohibited, unless approved by one or more of the Enforcing Agencies.

ARTICLE IV.
FAILURE TO ENFORCE IS NO WAIVER

The failure of the Enforcing Agencies to enforce any requirement, covenant, condition, restriction, or standard herein contained shall in no event be deemed to be a waiver of the right to do so thereafter or in other cases, nor shall such failure to enforce waive the Enforcing Agencies' right to enforce any other requirement, covenant, condition, standard or restriction. No provision of this Declaration shall be construed to require the Enforcing Agencies to enforce the requirements, covenants, conditions, restrictions, and/or standards set forth herein. Enforcement of such requirements, covenants, conditions, restrictions and/or standards shall be at the sole and absolute discretion of each of the Enforcing Agencies individually.

ARTICLE V.
RIGHT OF ENTRY

1. During reasonable hours and upon reasonable notice to Owner in possession, and subject to reasonable security and safety requirements, the Enforcing Agencies shall have the right to enter upon and inspect any portion of the Property: (a) to determine whether the requirements of this Declaration have been or are being complied with, and to abate, mitigate, or cure such violation or breach within a reasonable period of time; and (b) for only so long as is required, to complete all remediation, monitoring, sampling, or other response activities required by or to comply with any other requirements imposed by EPA.

2. Violation or breach of any covenant, condition or restriction contained in this Declaration shall entitle the Enforcing Agencies, or any of them, to provide the Owner in possession notice of and demand the prompt abatement, mitigation, or cure of such violation or breach. Should the Owner in possession fail to abate, mitigate, or cure such violation or breach within a reasonable period of time, the Enforcing Agencies shall have the right, privilege, and license to enter upon the Property where such violation or breach exists and to abate, mitigate, or cure such breach at the expense of that Owner. No such entry by the Enforcing Agencies or their agents shall be deemed a trespass, and neither the Enforcing Agencies nor their agents shall be subject to liability to the Owner for such entry and any action taken to remedy or remove the violation of this Declaration.

ARTICLE VI.
GENERAL PROVISIONS

1. Constructive Notices and Acceptance. Every person who now or hereafter owns, occupies, or acquires any right, title, or interest in or to any portion of the Property is and shall be conclusively deemed to have consented and agreed to every covenant, condition, restriction, and easement contained in this Declaration, whether or not any reference to this Declaration is contained in the instrument by which such person acquired an interest in the Property.

2. Runs with Land. All covenants, conditions, restrictions, and easements contained in this Declaration operate as covenants running with the land, for the benefit of the public and the Enforcing Agencies.

3. Enforcement of Declaration. If there is a violation or breach of any covenant, condition, or restriction contained in this Declaration, any of the Enforcing Agencies shall be entitled to commence an action or proceeding to enforce the terms of this Declaration and shall be entitled to any and all remedies available in equity or at law.

4. Warranty of Authority. BNSF hereby represents and warrants that this Declaration has been duly executed by one with authority to bind BNSF and is valid and binding upon it in accordance with its terms.

5. Recording of Declaration. BNSF hereby agrees and acknowledges that this Declaration shall be duly recorded upon its execution. BNSF further agrees and acknowledges that, if for any reason whatsoever this Declaration in its present form is deemed by the recording agency to be unrecordable, BNSF shall execute a substituted form of Declaration that corrects any deficiency preventing recordation but that is in all other respects identical to this Declaration.

6. Severability. The provisions of this Declaration shall be deemed independent and severable, and a determination of invalidity or enforceability of any one provision or portion of the Declaration by a court of competent jurisdiction shall not affect the validity or enforceability of any other provision of this Declaration.

7. Controlling Law. The interpretation and performance of this Declaration shall be governed by the laws of the State of New Mexico.

8. Termination. This Declaration can be terminated at any time upon agreement of all Enforcing Agencies.

IN WITNESS WHEREOF, BNSF has executed this Declaration of Restrictive Covenants as of this day and year first set forth above.

THE BURLINGTON NORTHERN AND SANTA FE RAILWAY COMPANY.

By: Robert E. Werner

Its: Robert E. Werner, Mgr Env. Remediation

STATE OF Texas)
COUNTY OF Tarrant)

The foregoing instrument is acknowledged before me this 17 day of March, 2003, by Robert E. Werner.

Judith A. Levy
Notary Public

My commission expires:

Dec. 19, 2004

JUDITH A. LEVY
Notary Public, State of Texas
My Commission Expires
December 19, 2004

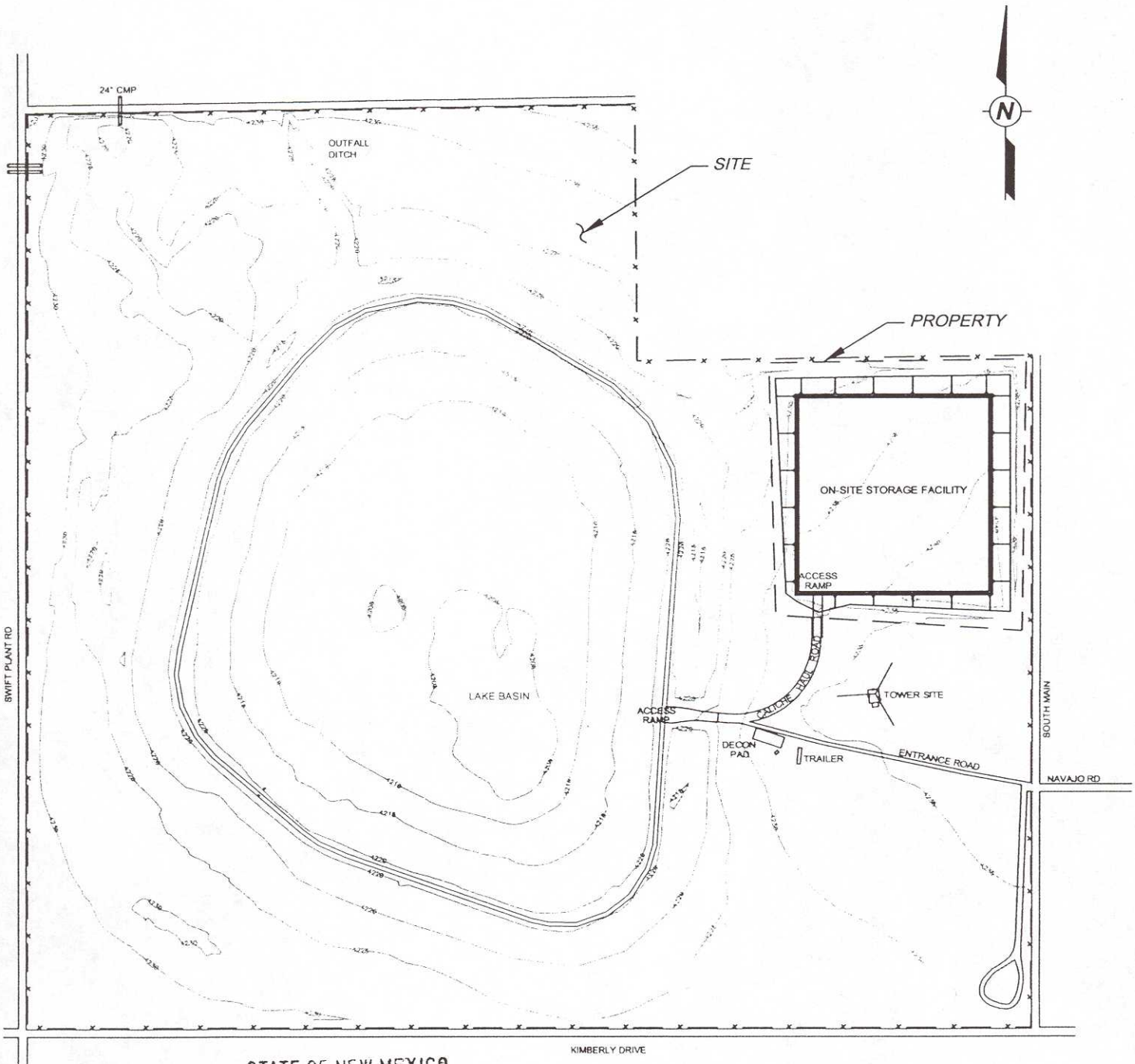
EXHIBIT A

METES AND BOUNDS DESCRIPTION

Legal Description of the **Property at Santa Fe Lake, Curry County, NM**.

A Tract of Land in the Southwest Quarter of Section 19, T2N R36E N.M.P.M Curry County, New Mexico, Being More Particularly Described As Follows:

Beginning at a Point 1047.50 Feet North, Along the North-South Quarter Section Line of Said Section 19, and 40.47 Feet West From the South Quarter Corner of Said Section 19. Thence N 86°14'18" W a Distance of 642.90 Feet; Thence N 01°40'45" W a Distance of 680.58 Feet; Thence N 89°09'24" E a Distance of 671.16 Feet; Thence S 00°45'11" W a Distance of 732.40 Feet to the Point of Beginning. Said Tract Contains 10.640 Acres of Land.



STATE OF NEW MEXICO
COUNTY OF CURRY
FILED FOR RECORD

2003 MAR 26 AM 9:56

BK 422 PG
CC RECORDS
MARIO TRUJILLO-CLERK
BY

STATE OF NEW MEXICO
COUNTY CLERK
CURRY COUNTY

0 200 400 800

SCALE IN FEET
1" = 400'-0"

SITE PLAN

BURLINGTON NORTHERN AND SANTA FE RAILWAY
SANTA FE LAKE SITE
CLOVIS, NEW MEXICO

PROJECT NO.: 25617 | DATE: 2-24-03

TRC
Environmental Corporation
Customer-Focused Solutions
2313 W. SAM HOUSTON PARKWAY N.
STE. 107
HOUSTON, TEXAS 77043
713-821-7000

EXHIBIT B

HOU O:\BNSF - Clovis Lake Site\Reports\Restrictive Covenant\ BNSF-CLOVIS-LAKE-CLOSURE-SITE-OSF-LOC.dwg 1 03/11/03

ATTACHMENT 5

PHOTOS DOCUMENTING SITE CONDITIONS

Cleanup view of vegetative cover of OSF cap

View of MW-F located south of OSF

View of re-vegetated area between site entrance road and OSF

View of vegetative cover of lake basin

View of vegetative cover of lake basin

View of OSF stormwater diversion channel on southside of OSF

View of rut created by irrigation system wheel
Ruts are collecting water in some areas

View of gravel (ballast) placed in ruts to reduce depth.
Also shows newly seeded areas

View of vegetative cover, silt fences, and irrigation system within lake basin

View of vegetative cover of OSF cap